

During field studies in Dehra Dun a fatal (to insects) relation between a shrub of the family compositae—*Bidens pilosa* Linn. with butterflies, dragonflies and damselflies was observed. The distribution of this shrub is throughout India. It was observed that at the time of seed dehiscence the seed spikes project around the dried flower. At the tip of each seed spike are 1-2 mm V-shaped spines having backwardly directed micro spines. Any winged insect sitting on these is unable to fly off as the recurved spines hook on to its body or wings resulting in the death of the insect thereon. In Dehra Dun region this has been observed along the river Badal in Sahasdhara Hills and in Siwalik forests where often quite a few insects are seen dead on this shrub. However, there is no carnivorous relationship between the plant and the insects.

Incidentally it may be pointed out that it is this plant whose spikes are often found stuck on clothing during trek in the forests.

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33. NOMENCLATORIAL NOTE ON *MIMUSOPS ELENGI* LINN.

In view of the taxonomic studies carried out by Lam (1925, 1927, 1932) and Van Royen (1952) on the genus *Mimusops* Linn., it has become necessary to put forward this note for the benefit of Indian botanists.

Van Royen (1952) considers *Mimusops elengi* Linn. an extremely variable species thereby leaving no room for distinguishing varieties or forms of Lam. But in the western parts of the Archipelago the leaves are larger up to 18 cm long and towards the east these decrease in size to 6 cm length, ending in the smaller leaves of *Mimusops parvifolia* R. Br.

The synonymy, in detail, is as follows:

Mimusops elengi Linn. Sp. Pl. 349, 1753; Lam in Bull. Jard. Bot. Bzg, sér. 3, 7:234, 1925; sér. 3, 8:479-480, 1927; and in Nova Guinea 14, 4:568, 1932; Van Royen in Blumea 6(3):594, 1952.

M. parvifolia R. Br. Prodr. 531, 1810; Lam in Bull. Jard. Bot. Bzg, sér. 3, 7:235, 1925.

M. elengi Linn. var. *typica* (*elengi*), var. *parvifolia* (R. Br.) Lam, var. *brevifolia* Lam and *M. elengi* Linn. var. *typica* (*elengi*), forma *longepedunculata* (Blume in Burck) Lam in Bull. Jard. Bot. Bzg, sér. 3, 7:235-238, 1925.

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34. NOCTURNAL POLLINATION IN *ANTIRRHINUM MAJUS* LINNAEUS BY *XYLOCOPA RUFESCENS* FABRICIUS

INTRODUCTION

In many regions of the World there exist a class of plants which blossom at night. This 'Nocturnal pollination system' has evolved in different plants of unrelated as well as related families. The study of the evolutionary aspect of night pollination has received very little attention so far. One of the most interesting aspects of night pollination is the role played by insects and other pollinators and the way these have become adapted along with the evolution of the plants. In this communication, some observations on the pollinating mechanism of the Snap-dragon (*Antirrhinum majus* L.) is presented.

The plants are cultivated at a height of 4400 ft (c. 1340 m) in the Biligirirangan Hills, near buildings. It was possible to study the pollinator and its plant for several hours at night. Such careful and prolonged observations have excluded all other possible methods of pollination.

DESCRIPTION

The plant, commonly called 'snout flower' or 'snap dragon' (anti = like, rhin = snout) belongs to the family Scrophulariaceae. It is usually cultivated in gardens. The flowers are mildly fragrant and have an uncommon structure. They are borne on long spikes. The corolla tube is rather large and saccate at the base. There are two prominent and curiously shaped lips. On pressing these lips gently between the thumb and the forefinger, they open wide apart due to an intricate mechanism and reveal the variegated throat. The upper lip is erect and the lower lip spreading. The middle lobe is smaller than the side lobes with a large bearded palate. The flowers are of various shades of pink, rose, apricot, orange, crimson, carmine, yellow, white and many gradients of